

REMARKS

The Examiner is thanked for the indication that claims 4-6 are allowed.

Claims 1-3 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Suzuki (U.S. Publication No. 2003/0122743) (hereinafter “Suzuki”) in view of Honda et al. (U.S. Publication No. 2002/0030672) (hereinafter “Honda”). Claim 1 has been amended to differently describe embodiments of the disclosure of the instant application. To the extent that these rejections might be deemed to still apply to the claims as newly-amended, they are respectfully traversed for at least the following reasons.

Applicants respectfully submit that newly-amended independent claim 1 describes an advantageous combination of features of a display device that includes, for example, two particular features as follows. A first is that the controller performs adjusting for each field of the image signal. Also, the combination of independent claim 1 now includes a “multi-grayscale processing circuit for error diffusion processing or dither processing on the image signal.”

Applicants respectfully submit that these two features are not taught by Suzuki or Honda whether taken separately, or in combination with each other, as will now be discussed in detail.

The specification of the instant application, at the last paragraph of page 6, for example, teaches that a multi-grayscale processing circuit 4 performs error diffusion processing or dither processing on the image signal (pixel data). See also Figure 1 of the instant application, for example.

Applicants respectfully submit that Honda is characterized by “changing the number of said divisional display periods in said unit display period in accordance with the luminance distribution every display line,” as mentioned in the last subparagraph of claim 1 of Honda. If

the display periods in one field are controlled using seven subfields in order to have desired grayscale display, then the average number of subfields for one display line is seven. As shown in Figures 4 and 24 of Honda, the display line for the pattern A has a 10-subfield structure, the display line for the pattern B has a 5-subfield structure, the display line for the pattern C has a 5-subfield structure, and the display line for the pattern D has a 5-subfield structure. These subfield structures are decided by the luminance distributions of the respective display lines.

Applicants respectfully submit that their disclosed invention, on the other hand, obtains the brightness (luminance) frequency data for each field. Also, the field is two-dimensional. Then, the number of subfields at each brightness within each brightness region is adjusted for each field, based on the brightness frequency data.

This is a particularly different type of arrangement than that disclosed in Honda which obtains the brightness frequency data for each display line, as discussed previously. The display line is one-dimensional. Then, the number of subfields at each brightness within each brightness region is adjusted for each display line, based on the brightness frequency data.

Applicants respectfully submit that in their disclosed invention, two-dimensional error-diffusion processing or dither processing should be performed because the display device of the Applicants' invention applies the error diffusion processing or dither processing on the image signal field-by-field (or two dimensionally) during the grayscale processing. Otherwise, Applicants respectfully submit that the number of obtainable grayscales would become insufficient and therefore smooth grayscales (gradation) would not be obtained. Applicants further note that in this situation, the error diffusion processing or dither processing itself would create significant noises. In Honda, on the other hand, Applicants respectfully submit that one-

dimensional error-diffusion processing or dither processing should be employed because the number of subfields at each brightness within each brightness region is adjusted for every line (or one dimensionally).

For at least the foregoing reasons, Applicants respectfully submit that the structure of the claimed display device, as described in the combination of features of independent claim 1 of the instant application, is different from that of Honda. Thus, one having ordinary skill in the art would not look to a one-dimensional (per display line) arrangement such as that disclosed in Honda in order to reach the two-dimensional (per field) arrangement as described in independent claim 1 of the instant application. However, even assuming, strictly arguendo, that one having ordinary skill might be led to make the combination of Suzuki and Honda as asserted by the Office Action, they would still not arrive at the Applicants' invention, as described in the advantageous combination of features described in newly-amended independent claim 1 because at least the foregoing features of this claim as discussed above are not taught or suggested by Suzuki and Honda whether taken separately or in combination with each other.

Accordingly, Applicants respectfully assert that the rejections under 35 U.S.C. § 103(a) should be withdrawn because neither Suzuki nor Honda, whether taken singly or combined, teach or suggest each feature of independent claim 1 of the currently pending claims. MPEP § 2143.03 instructs that “[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 409 F.2d 981, 180 USPQ 580 (CCPA 1974).” Furthermore, Applicants respectfully assert that dependent claims 2-3 are allowable at least because of their dependence from claim 1, and the reasons set forth above. The remaining claims 4-6 have been indicated as allowed by the Examiner.

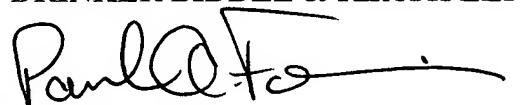
CONCLUSION

In view of the foregoing amendments and remarks, withdrawal of the rejections and allowance of all pending claims are earnestly solicited. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution. A favorable action is awaited.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. § 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0573. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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